ORDER NO. RD7907-1668C

Service Manual

Transceiver

RJ-380E

6-CHANNEL CITIZEN-BAND TRANSCEIVER

■SPECIFICATIONS

Frequency Range:	6-channel 27 MHz Citizen Band
Intermediate Frequency:	455 kHz
Sensitivity:	0.5 μV/m for 50 mW Output
Power Output:	Transmit 500 mW Receive 500 mW
Power Source:	12 V (eight "AA" size Penlight Batteries) (National UM-3 or equivalent), or any 12-volt DC power supply
Speaker:	6 cm (2¼") PM Dynamic Speaker
Dimensions:	82(Wide)×282(High)×90(Deep) mm (3¼"×11⅛"×3⁹⁄₁₆")
Weight:	1.1 kg (2 lb. 6.8 oz) without batteries
Impedance:	Speaker .....8Ω Earphone/EXT. Speaker Jack .....8Ω EXT. Antenna Jack .....50Ω Microphone Jack 600Ω

Specifications are subject to change without notice.

Panasonic

Matsushita Electric Trading Co., Ltd.
P.O. Box 288, Central Osaka, Japan

LOCATION OF CONTROLS

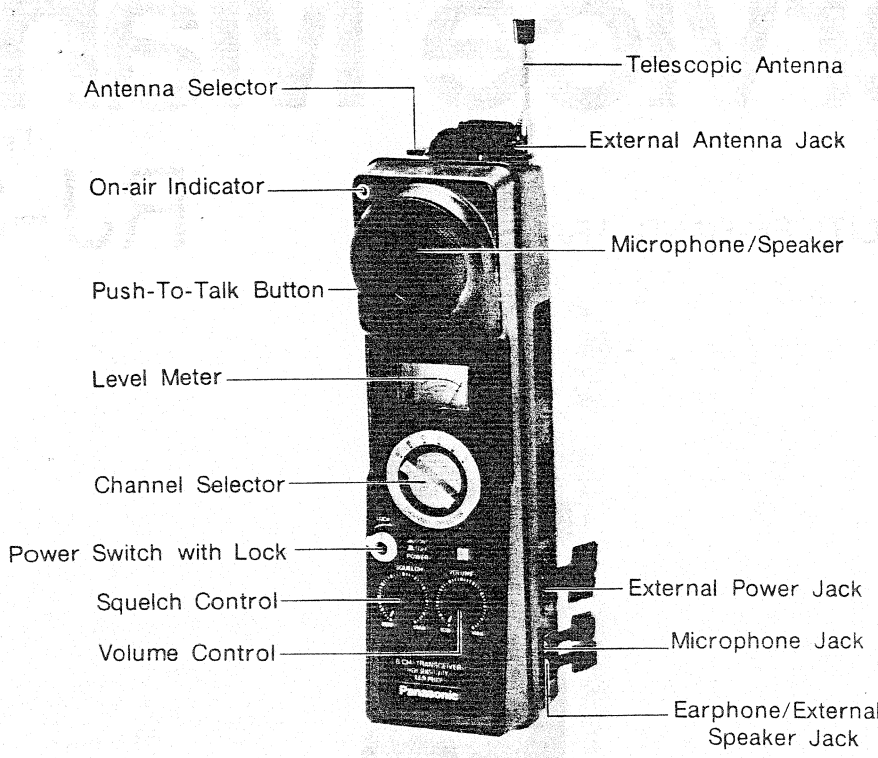
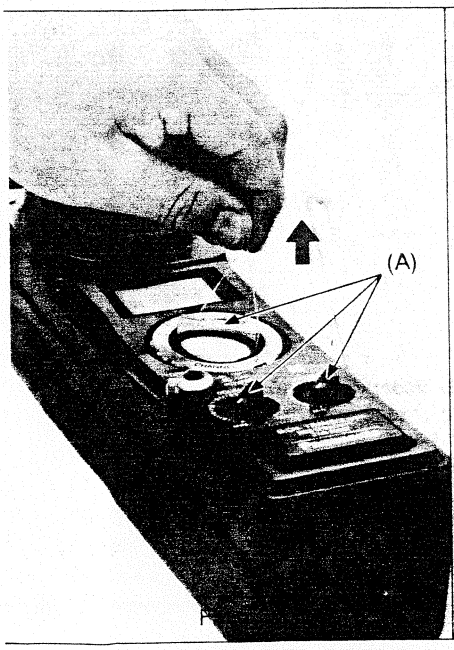


Fig.1

DISASSEMBLY INSTRUCTIONS



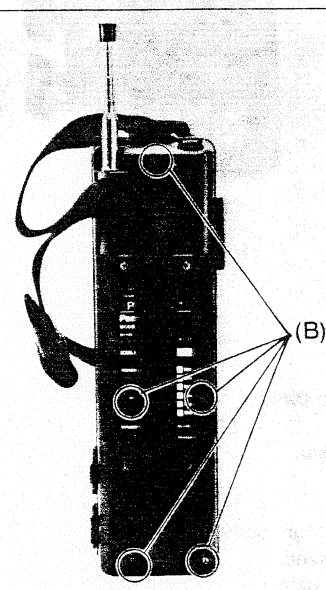


Fig.3

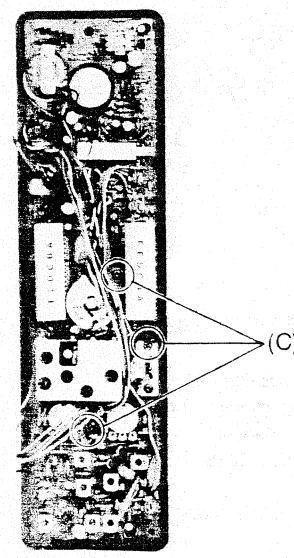
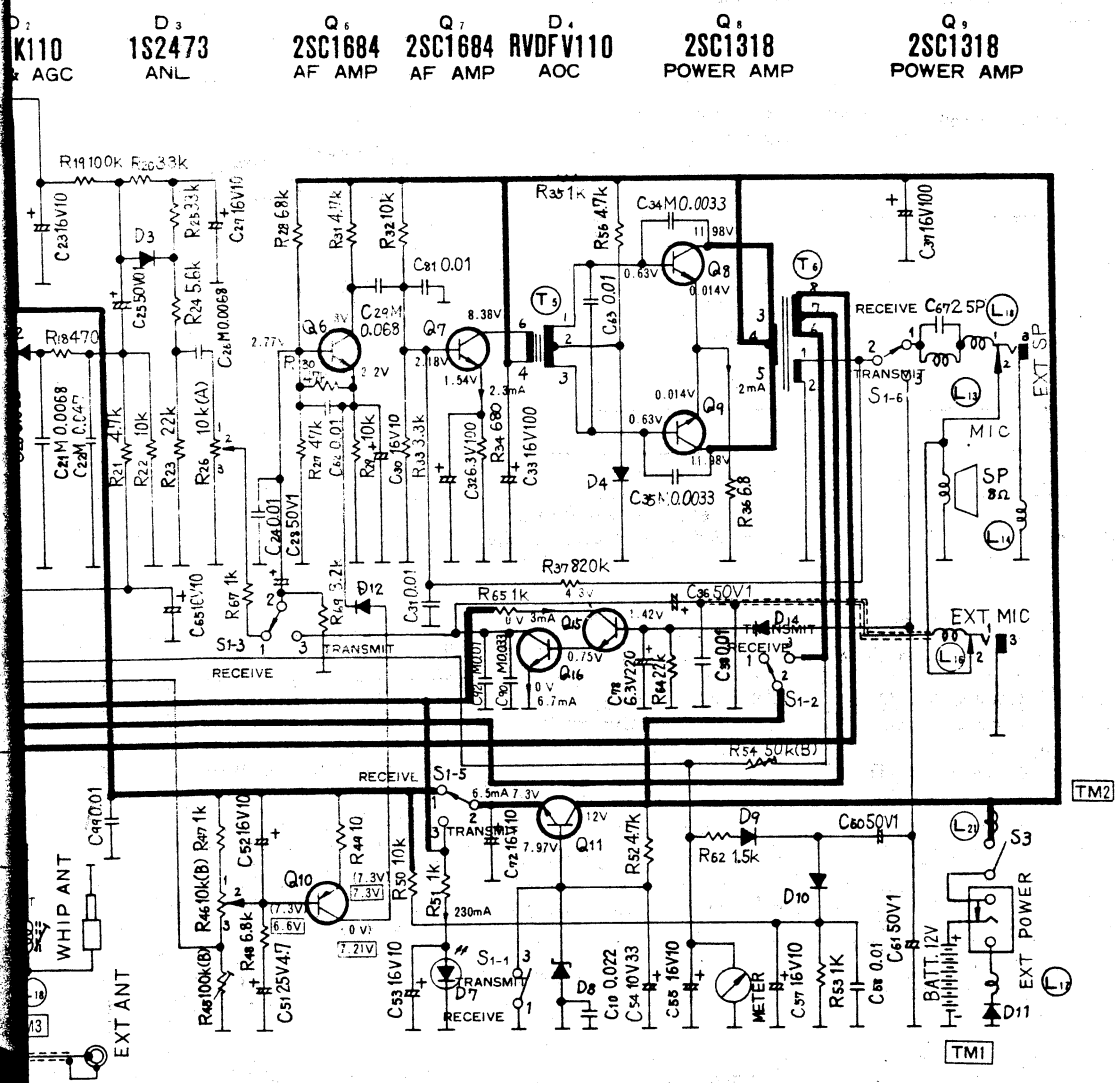


Fig.4

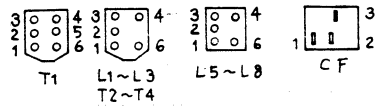
Procedure	To remove—.	Remove—.	Pcs.	Shown in fig.—.
1	Knobs	(A)	(3)	(2)
2	Cabinet Cover	(B)	(5)	(3)
3	Chassis	(C)	(3)	(4)

m-Model RJ-380E

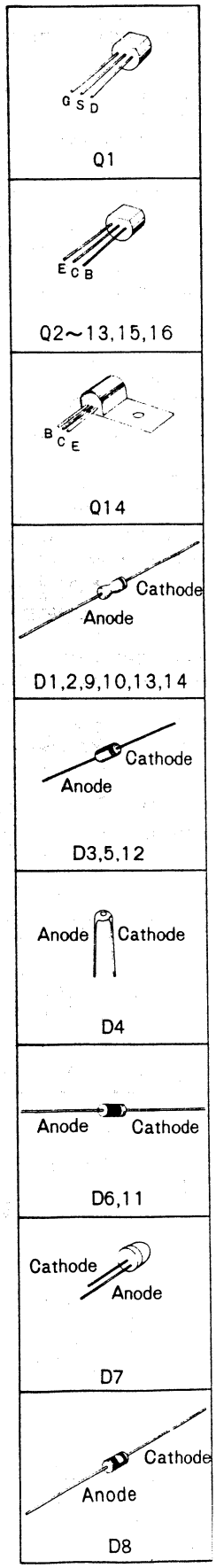


Q10	D7	Q11	D8	D9	D10	D11
2SA564	LN28RP	2SC1684	MA1082	RVD1K110	RVD1K110	RVDGP08A
SQUELCH AMP	INDICATOR	REGULATOR	REGULATOR	AF DET	AF DET	PROTECT

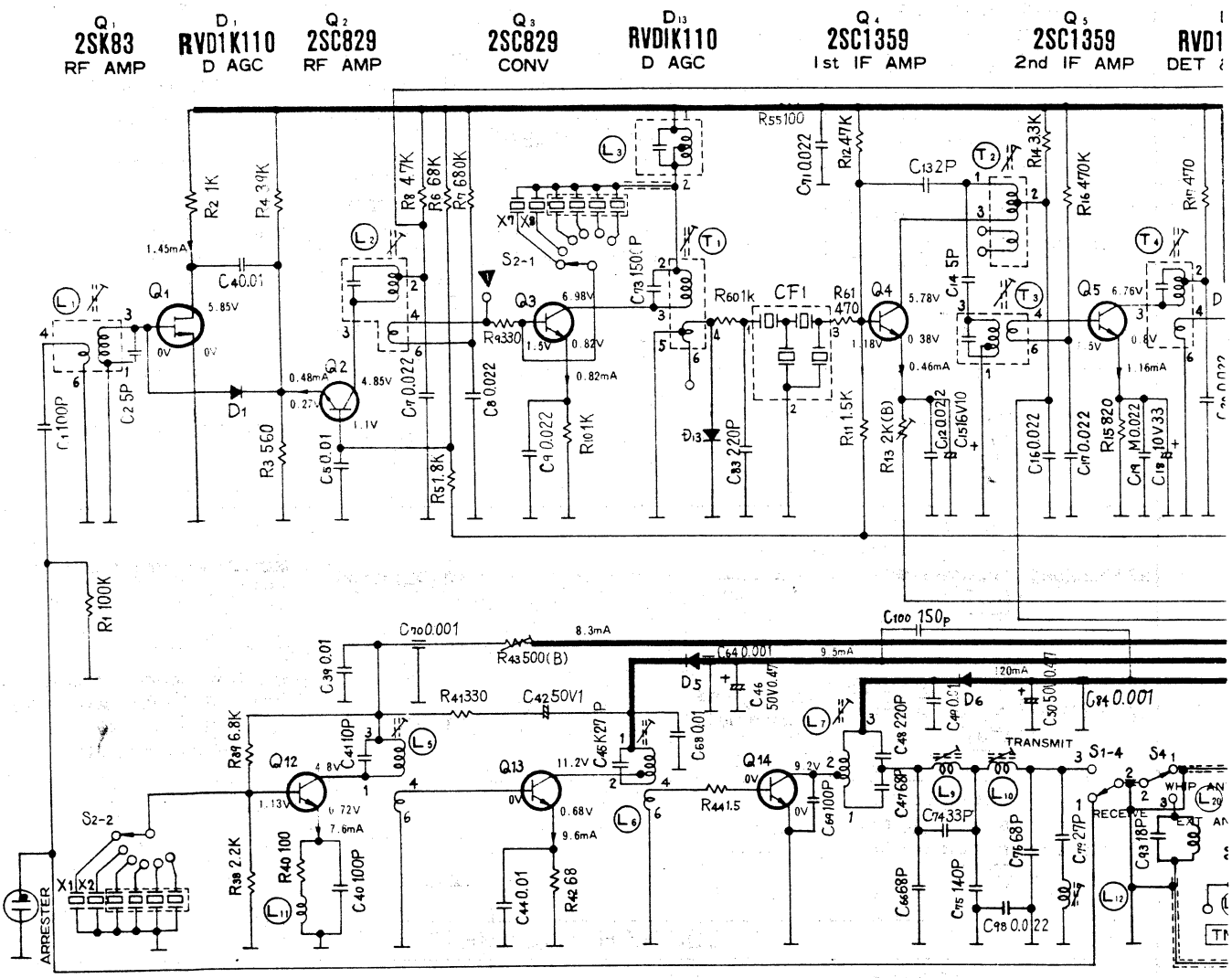
Q15	Q16	D14
2SC1684	2SC1684	RVD1K110
ALC	ALC	ALC



VIEW)



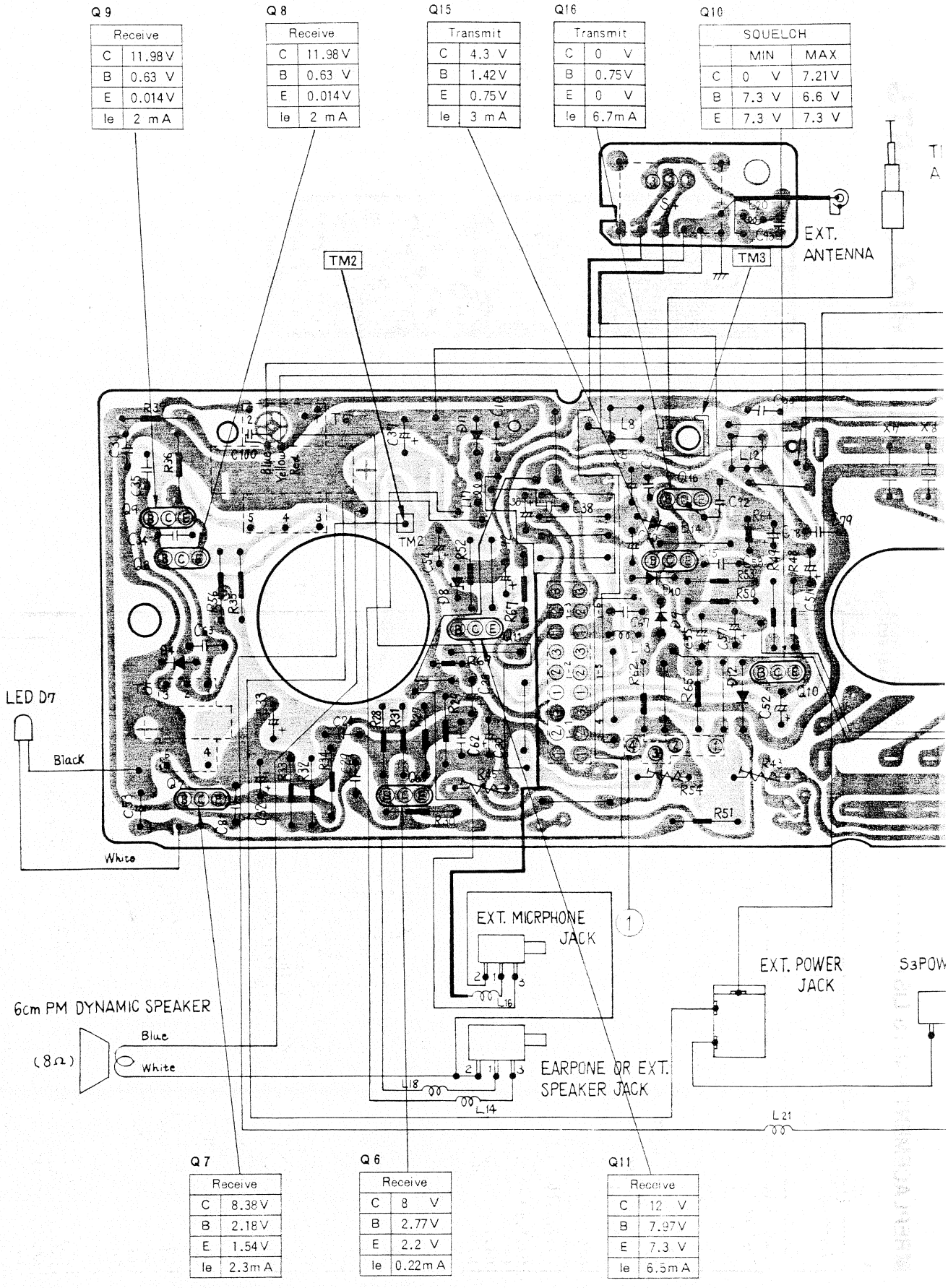
Schematic Diagra



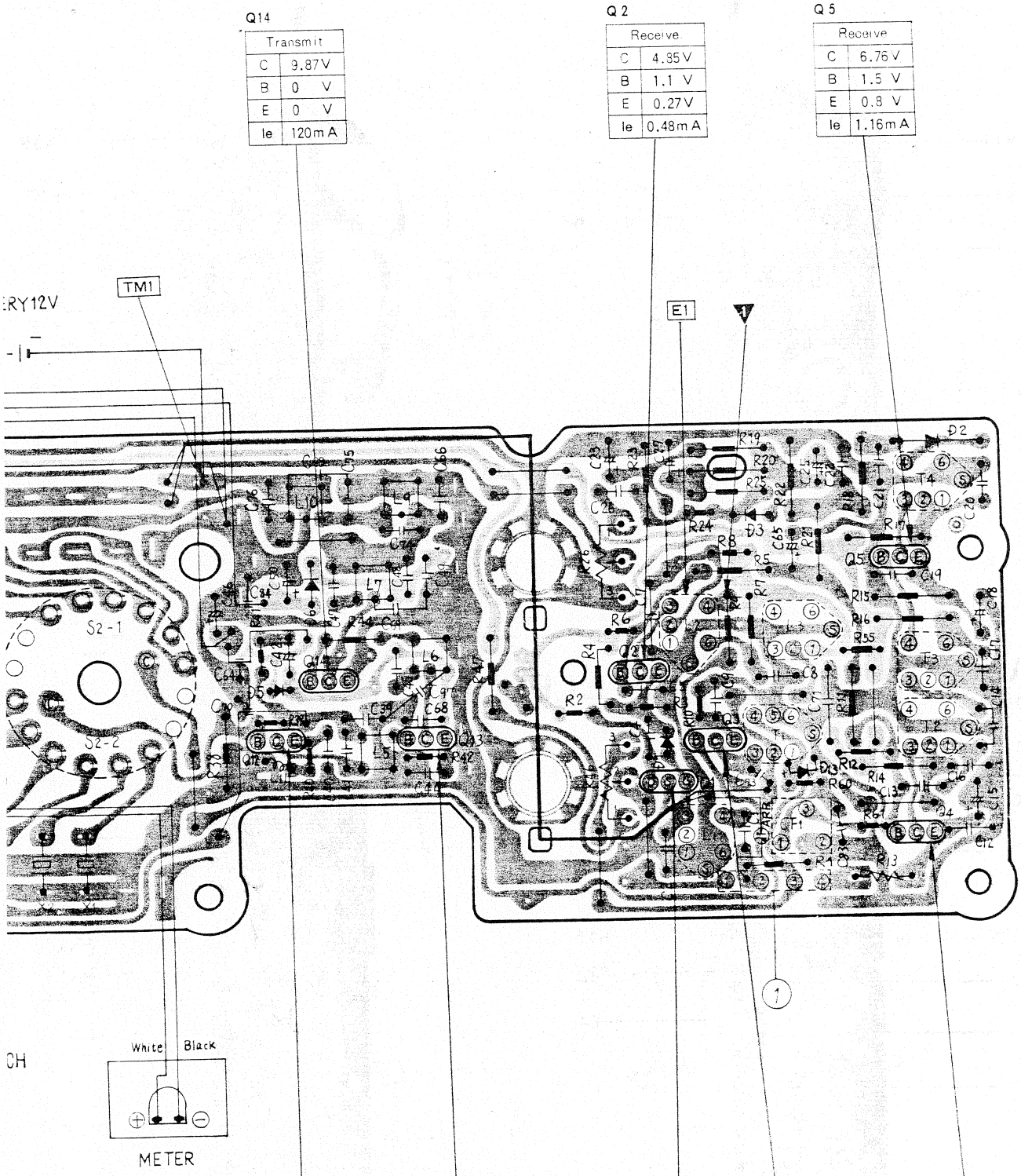
Notes:

1. S1–1–S1–6: Push to talk switch in "RECEIVE" position.
2. S2–1, S2–2: Channel selector switch.
3. S3: Power source switch in "OFF" position.
4. S4: Antenna selector switch in "WHIP ANT" position.
5. DC voltage measurements are taken with circuit tester 100 kΩ/V from negative terminal of battery.
   Q1–9, 11.....Receive position
   Q12, 13, 14, 15, 16.....Transmit position.
6. Battery current
   Receiver.....16 mA (Nosignal)
   100 mA (Maximum output)
   Transmitter.....160 mA (No Signal)
   350 mA (Maximum output)

Circuit Board Wiring



/-Model RJ-380E



CABINET PARTS

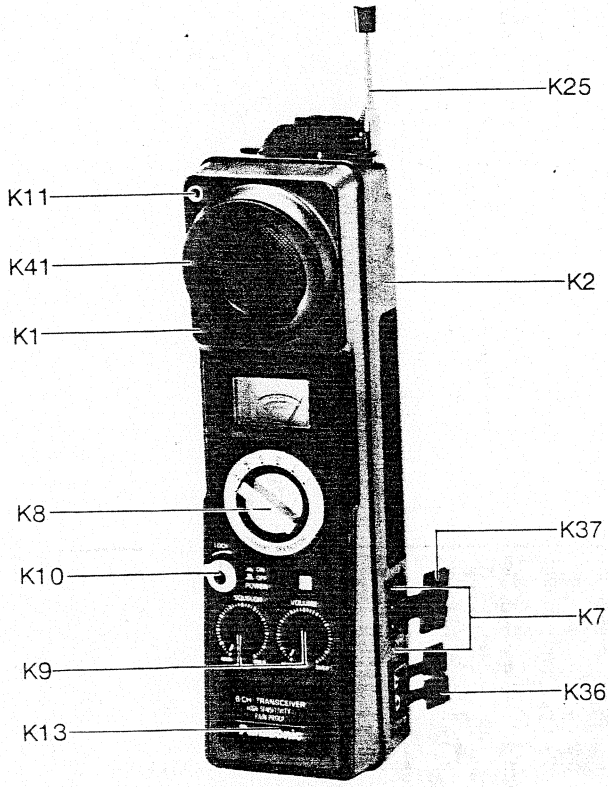


Fig.8

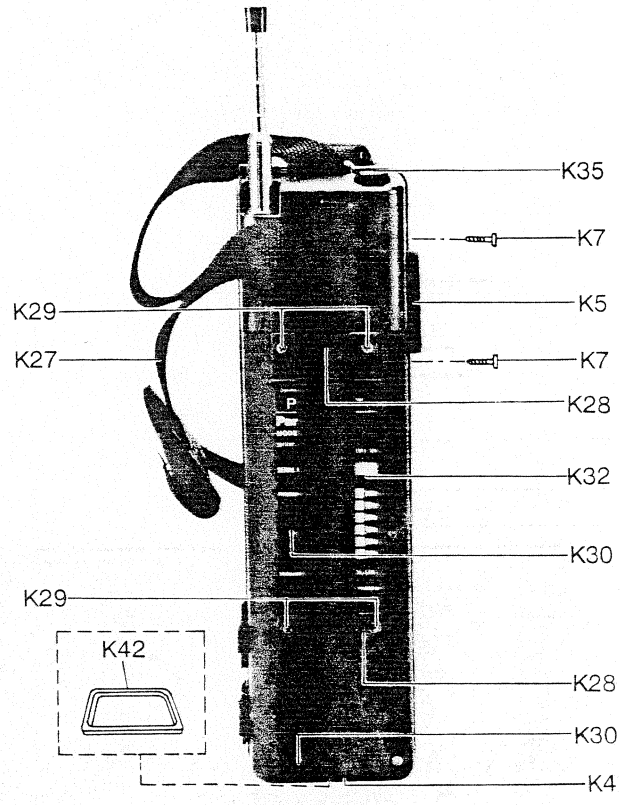


Fig.9

CABINET & ELECTRICAL PARTS

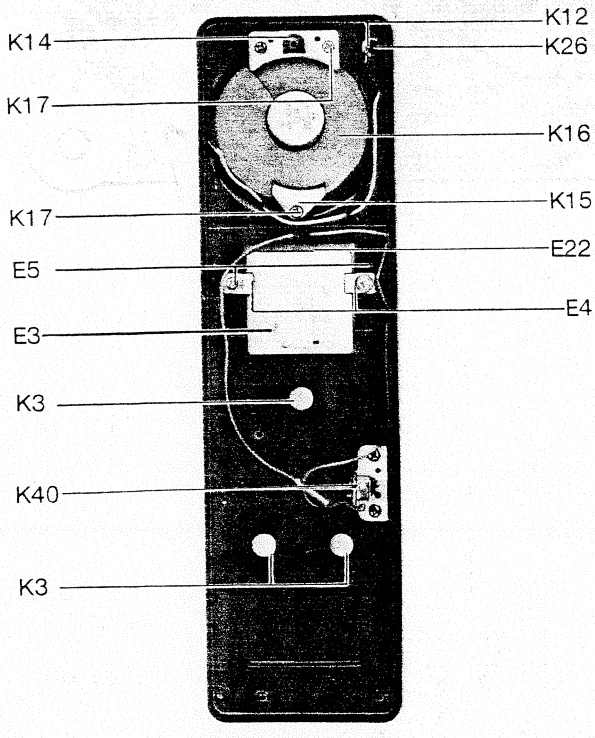


Fig.10

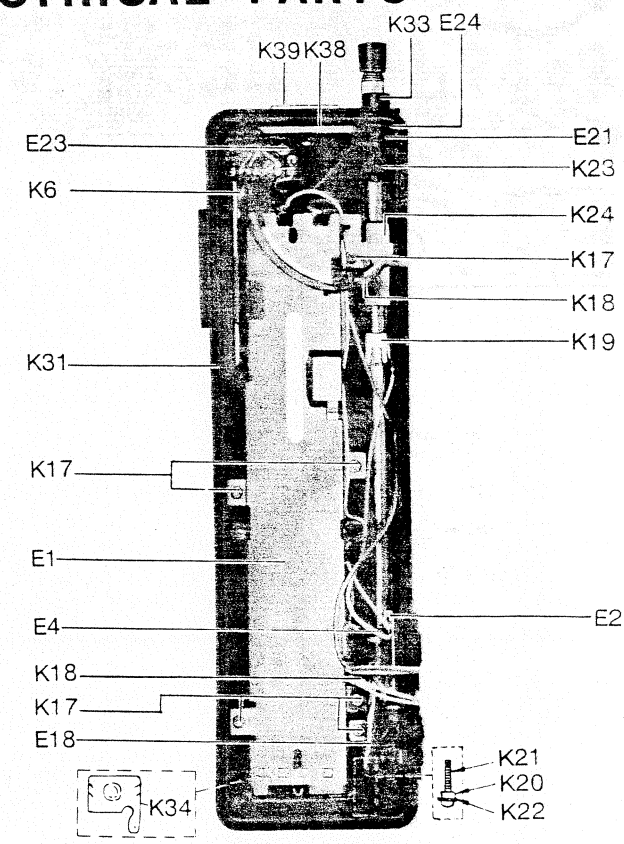


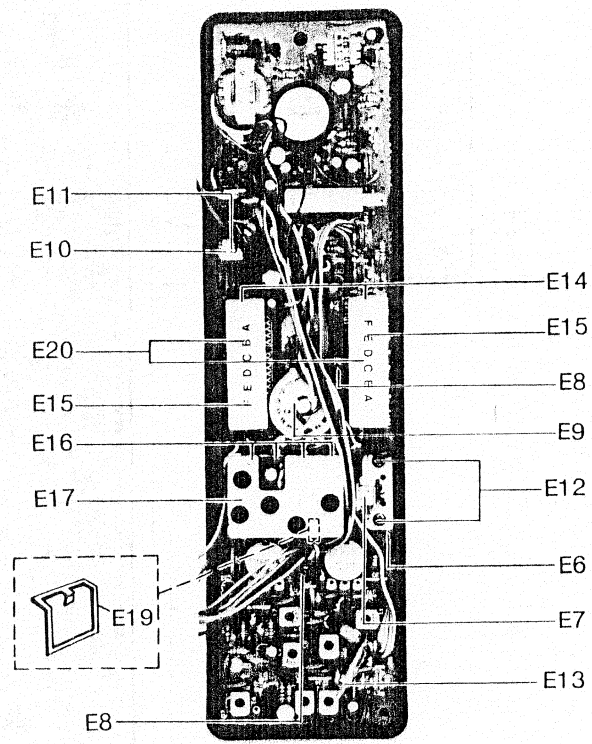
Fig.11

ELECTRICAL PARTS

■REPLACEMENT PARTS LIST..... Model RJ-380E (RD7906-1668C)

NOTES:
The S mark is service standard parts and may differ from production parts.

Ref. No.	Part No.	Part Name & Description	Per Set	Remarks
		TRANSISTORS AND DIODES		
Q1	2SK83	Transistor (Si)	1	
Q2,3	2SC829	"	2	
Q4,5	2SC1359	"	2	
Q6,7,11,15,16	2SC1684	"	5	
Q8,9,12,13	2SC1318	"	4	
Q10	2SA564	"	1	
Q14	2SC1407	"	1	
D1,2,9,10,13,14	OA90	Diode (Ge)	6	S
D3,5,12	MA161	Diode (Si)	3	S
D4	RVDFV110	"	1	
D6,11	RVDGP08A	"	2	
D7	LN28RP	L.E.D.	1	
D8	MA1082	Diode (Si)	1	
		CRYSTALS		
X1	RVCY7005CTK	Transmitter (X1, X7 1 Pair)	1	
X2	RVCY7055CTK	" (X2, X8 1 Pair)	1	
X7	RVCY6550GRK	Receiver (X7, X1 1 Pair)	1	
X8	RVCY6600GRK	" (X8, X2 1 Pair)	1	
		COILS AND TRANSFORMERS		
L1	RLA7M36	RX Antenna Coil	1	
L2	RLA7M37	RX Detection Coil	1	
L3	RLA7M39	RX Oscillator Coil	1	
L5	RLO7N3	TX Oscillator Coil	1	
L6	RLA7N19	TX Buffer Coil	1	
L7	RLA7N4	TX Final Coil	1	
L8	RLA7N17	TX Loading Coil	1	
L9,10,12	RLA7N6	TX Filter Coil	3	
T1	RLI2M210	IFT, 1st	1	
T2	RLI2M211	IFT, 2nd (Primary)	1	
T3	RLI2M406	IFT, 2nd (Secondary)	1	
T4	RLI2M405	IFT, 3rd	1	
T5	RLT3D16	Input Transformer	1	
T6	RLT4G6	Output & Mod Transformer	1	
		VARIABLE RESISTORS		
R13	EVLT4AA00B23	Semi-Fixed Resistor, 2kΩ (B)	1	
R43	EVLT4AA00B52	" 500 Ω (B)	1	S
R45	EVLT4AA00B15	" 100kΩ (B)	1	S
R54	EVLT4AA00B54	" 50kΩ (B)	1	S
R26	EVH17A805A14	Variable Resistor, 10kΩ (A)	1	



Ref. No.	Part No.	Part Name & Description	Per Set	Remarks
R46	EVH17A805B14	Variable Resistor, 10kΩ (B)	1	
		CERAMIC FILTER		
CF1	RVFLFB6A	Ceramic Filter	1	
		SPEAKER		
	EAS6P75GR	Speaker, 6cm (2-1/4"), 8Ω	1	
		SWITCHES		
S1-1 ∿ S1-6	RSH2F05Z	Switch, Push to Talk	1	
S2-1, S2-2	RSR6B01Z	" Channel Selector	1	
S3	RSH9Z	" Power	1	
S4	RSS2A06Z	" Antenna Selector	1	
		JACKS		
J1	RJJ26A	Jack, Microphone	1	S
J2	RJJ32E	" Earphone	1	S
J3	RJJ83Z	" EXT. Power	1	
		RESISTORS (Value is in OHMS)		
R44	ERD25VJ1R5	1.5 1/4W Carbon	1	
R36	ERX12ANJ6R8	6.8 1/2W Metal Oxide	1	S
R49	ERD25TJ100	10 1/4W Carbon	1	S
R42	ERD25TJ680	68 " "	1	S
R40,55	ERD25TJ101	100 " "	2	S
R9,41	ERD25TJ331	330 " "	2	S
R17,18,61	ERD25TJ471	470 " "	3	S
R3	ERD25TJ561	560 " "	1	S
R34	ERD25TJ681	680 " "	1	S
R15	ERD25TJ821	820 " "	1	S
R2,10,35,47,51,53,60,65,67	ERD25TJ102	1 K " "	9	S
R11,62	ERD25TJ152	1.5 K " "	2	S
R5	ERD25TJ182	1.8 K " "	1	S
R38	ERD25TJ222	2.2 K " "	1	S
R14,33	ERD25TJ332	3.3 K " "	2	S
R8,21,31,52,56	ERD25TJ472	4.7 K " "	5	S
R24	ERD25TJ562	5.6 K " "	1	S
R39,48	ERD25TJ682	6.8 K " "	2	S
R69	ERD25TJ822	8.2 K " "	1	S
R22,29,32,50	ERD25TJ103	10 K " "	4	S
R23,64	ERD25TJ223	22 K " "	2	S
R20,25	ERD25TJ333	33 K " "	2	S
R4	ERD25TJ393	39 K " "	1	S
R12,27,30	ERD25TJ473	47 K " "	3	S
R6,28	ERD25TJ683	68 K " "	2	S
R1,19	ERD25TJ104	100 K " "	2	S
R16	ERD25TJ474	470 K " "	1	S
R7	ERD25TJ684	680 K " "	1	S

Ref. No.	Part No.	Part Name & Description	Per Set	Remarks
R37	ERD25TJ824	820 K 1/4W Carbon	1	S
		CAPACITORS (Value is in MICRO FARADS except P.P=PICO FARADS)		
C13	ECCD1H020C	2 P 50V Ceramic	1	
C67	ECCD1H2R5C	2.5 P " "	1	
C2,14	ECCD1H050CC	5 P " "	2	
C41	ECCD1H100KC	10 P " "	1	
C93	ECCD1H180KC	18 P " "	1	
C45,79	ECCD1H270KC	27 P " "	2	
C74	ECCD1H330KC	33 P " "	1	
C83	ECCD1H221K	220 P " "	1	
C1	ECKD1H101JA	100 P " "	1	
C34,35	ECKD1H332MD	0.0033 " "	2	
C21,26	ECKD1H682MD	0.0068 " "	2	
C4,5,31,38,39,44,49,58,62,63,68,81,99	ECKD1H103ZF	0.01 50V "	13	
C92	ECKD1H103MD	0.01 " "	1	
C7,8,9,10,12,16,17,20,71,98	ECKD1H223ZF	0.022 " "	10	
C19	ECFVD223MD	0.022 25V Semi-Conductor	1	
C90	ECFVD333MD	0.033 " "	1	
C22	ECFVD473MD	0.047 " "	1	
C29	ECFVD683MD	0.068 " "	1	
C47,66,76	ECMSO5680J	68 P 50V Mica	3	
C40,69	ECMSO5101J	100 P " "	2	
C48	ECMSO5221J	220 P " "	1	
C75	ECMSO5141J	140 P " Styrol	1	
C73	ECQSO5152KZ	1500 P " "	1	
C64,70,84	ECKL1H102PF	0.001 " Ceramic	3	
C24	ECQM1H103KZ	0.01 " Polyestor	1	
C25	ECEA50ZR1	0.1 " Electrolytic	1	S
C46,50	ECEA50ZR47	0.47 " "	2	S
C42,60,61	ECEA50N1	1 " "	3	S
C28,36	ECEA50Z1	1 " "	2	S
C51	ECEA25Z4R7	4.7 25V "	1	S
C15,23,27,30,52,53,55,57,65,72	ECEA1HS100	10 50V "	10	S
C18,54	ECEA1CS330	33 16V "	2	S
C32	ECEA1AS101	100 10V "	1	S
C33,37	ECEA1ES101	100 25V "	2	S
C78	ECEA1AS221	220 10V "	1	S
C100	ECCD1H151K	150 P 50V Ceramic	1	
		CABINET PARTS		
K1	RYMJ380EXD	Cabinet Body Assembly	1	
K2	RYFJ380EXD	Cabinet Cover Assembly	1	
K3	RHG956A	Rubber Spacer, Knob	3	
K4	RJK3804Z	Battery Case	1	
K5	RBC137Z	Button, Push to Talk	1	
K6	RMD4012Z	Bracket, Push to Talk Button	1	
K7	XSB2+8BZ	Screw, 2x8	4	
K8	RBS129ZK	Knob, Channel Selector	1	

Ref. No.	Part No.	Part Name & Description	Per Set	Remarks
K9	RBS130ZK	Knob, Volume & Squelch	2	
K10	RBS120Z	Knob, Power	1	
K11	RGX970Z	Ornament, Indicator	1	
	RHG552Z	Rubber, Indicator	1	
K12	RHE7030Z	Nut	1	
K13	RGX985Y	Indicating Plate	1	
K14	RMS44Z	Bracket, Speaker	1	
K15	RMS30	Bracket, Speaker	1	
K16	RHS627Z	Cover, Speaker	1	
	RHR889Z	Cushion, Speaker	1	
K17	XTN3+10B	Screw, 3x10	10	S
K18	RME143Z	Lead Wire Holder	2	
K19	RJT320A	Terminal, Telescopic Antenna	1	
K20	RHG551Z	Rubber, Telescopic Antenna Screw	1	
K21	XSN3+50FN	Screw, 3x50	1	
K22	XWE3FN	Washer	1	
K23	RMX33Z	Spacer, Telescopic Antenna	1	
K24	RUL588Z	Bracket, Telescopic Antenna	1	
K25	XEARV245JGY	Telescopic Antenna	1	
K26	RMX148Z	Spacer, Indicator	1	
K27	RQC9015Z	Belt	1	
K28	RKT102Z	Bracket, Belt	2	
K29	XTW3+10FZ	Screw, 3x10	4	
K30	XTB3+50BFN	Screw, 3x50	5	S
K31	RHG465Z	Rubber, Cabinet Cover	1	
K32	RGT648X	Name Plate	1	
K33	RMK181-1	Cover, EXT. Antenna Jack	1	
K34	RJC314A	Battery Terminal, + Side	2	
K35	RUV533Z	Cover, Antenna Selector Switch	1	
K36	RUV513Z	Cover, MIC & EP Jack	1	
K37	RUV296Z	Cover, EXT. Power Jack	1	
K38	RUS339Z	Spring, Bracket M'tg	1	
K39	RKT111Z	Bracket	1	
K40	RHG963A	Rubber, Power Switch	1	
K41	RHG479Z	Rubber, Speaker & Microphone	1	
K42	RHG464Z	Rubber, Cabinet Cover (Bottom)	1	
		ELECTRICAL PARTS		
E1	RZUJ380X3	Battery Case Bracket Assembly	1	
E2	RMK90-2	Bracket EXT. Power Jack	1	
	RHG689Z	Rubber Sheet, EXT. Power Jack Bracket	1	
E3	RSM2531Z	Meter	1	
E4	RUL575Z	Bracket, Meter	2	
E5	XTW3+8F	Screw, 3x8	2	
E6	RMW161Z	Bracket, Power Switch	1	
E7	XSH2+4	Screw, 2x4	1	
	XNS8	Nut	2	
E8	XTW3+10FR	Red Screw, 3x10	2	
E9	XUC4FT	Circlip, Channel Selector M'tg	1	S
E10	RUL576Z	Terminal	1	
E11	XYN3+C6S	Screw, 3x6	1	
E12	XTN3+8B	Screw, 3x8	2	S
E13	XAN5T25	Neon Lamp	1	S
E14	RMC448Z	Shield Case	2	

Ref. No.	Part No.	Part Name & Description	Per Set	Remarks
E15	RMC449Z	Shield Cover	2	
E16	RMC557Z	Shield Case	4	
E17	RMC558Z	Shield Cover	1	
	RMC576Z	Shield Cover	1	
E18	RUL591Z	Bracket, Telescopic Antenna	1	
E19	RUS269Z	Spring	1	
E20	RQT9080Z	Label (ABCDEF)	2	
E21	RJS42	Socket, EXT. Antenna	1	
	RJS270Z	Socket, Crystal	4	
E22	RHR683Z	Cushion, Meter	1	
E23	XTN3+10BR	Red Screw, 3x10	1	S
E24	RME224Z	Bracket, EXT. Antenna Socket	1	
		ACCESSORIES		
A1	XEH1A1-P	Earphone, 8Ω	1	S
A2	RJA30A	EXT. Antenna Cord	1	
A3	XZB10X20A04	Polyethylene Cover	1	
A4	RJP91	Plug	1	
		PACKING MATERIALS		
P1	XZB40X30A04	Polyethylene Cover	1	
P2	RPN9299Y	Pad Complete	1	
P3	RPG2087Z	Packing Case	1	
P4	RQX6430Z	Instruction Book	1	
P5	RQX6484Z	Instruction Book	1	

Frequency	Part Number	
	Transmitting	Receiving
26.150MHz	RVCY6150B4TK	RVCY5695B4RK
26.250MHz	RVCY6250B4TK	RVCY5795B4RK
26.350MHz	RVCY6350B4TK	RVCY5895B4RK
26.450MHz	RVCY6450B4TK	RVCY5995B4RK
26.550MHz	RVCY6550B4TK	RVCY6095B4RK
26.650MHz	RVCY6650B4TK	RVCY6195B4RK
26.750MHz	RVCY6750B4TK	RVCY6295B4RK
26.850MHz	RVCY6850B4TK	RVCY6395B4RK
26.950MHz	RVCY6950B4TK	RVCY6495B4RK
26.965MHz	RVCY6965B4TK	RVCY6510B4RK
26.975MHz	RVCY6975B4TK	RVCY6520B4RK
26.985MHz	RVCY6985B4TK	RVCY6530B4RK
27.005MHz	RVCY7005B4TK	RVCY6550B4RK
27.015MHz	RVCY7015B4TK	RVCY6560B4RK
27.025MHz	RVCY7025B4TK	RVCY6570B4RK
27.035MHz	RVCY7035B4TK	RVCY6580B4RK
27.055MHz	RVCY7055B4TK	RVCY6600B4RK
27.065MHz	RVCY7065B4TK	RVCY6610B4RK
27.075MHz	RVCY7075B4TK	RVCY6620B4RK
27.085MHz	RVCY7085B4TK	RVCY6630B4RK
27.095MHz	RVCY7095B4TK	RVCY6640B4RK
27.105MHz	RVCY7105B4TK	RVCY6650B4RK
27.115MHz	RVCY7115B4TK	RVCY6660B4RK
27.125MHz	RVCY7125B4TK	RVCY6670B4RK
27.135MHz	RVCY7135B4TK	RVCY6680B4RK
27.155MHz	RVCY7155B4TK	RVCY6700B4RK
27.165MHz	RVCY7165B4TK	RVCY6710B4RK
27.175MHz	RVCY7175B4TK	RVCY6720B4RK
27.185MHz	RVCY7185B4TK	RVCY6730B4RK
27.205MHz	RVCY7205B4TK	RVCY6750B4RK
27.215MHz	RVCY7215B4TK	RVCY6760B4RK
27.225MHz	RVCY7225B4TK	RVCY6770B4RK
27.255MHz	RVCY7255B4TK	RVCY6800B4RK

QM S XD
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